

User Guide

The FNB56A6 module belongs to NXP module, which is used for the development of door lock, sensor, infrared treasure and other equipment. Modules with a total of 18 pins, retained the USB TO TTL interface, UART interface, and the ADC interface. The module best working in the recommended application condition , it is best not to let the module working under the condition of the limit of application. The module is equipped with a shield, insulated from external signals, external ceramic antennas for enhanced module's sending and receiving signals.

Pin Assignments:

Pin number	I/O	Name	Description
1	I	VCC	Power input (+3.3V)
2	I/O	P17	Digital I/O
3	I/O	P13	Digital I/O
4		GND	Ground
5	I/O	P19	Digital I/O
6	I/O	P5	Digital I/O
7	I/O	P18	Digital I/O
8	I/O	P16	Digital I/O
9	I/O	P11	Digital I/O
10	I/O	P9	Digital I/O
11	I/O	P12	Digital I/O
12	I/O	P1	Digital I/O
13		GND	Ground
14	I	RESET_N	System RESET Signal, Low Level Active
15	I/O	P6	TX
16	I/O	P7	RX
17	I	VCC	Power input (+3.3V)
18	I/O	DO1	Send 0 to clear the input

Features:

- Follow IEEE802.15.4 Standard
- 32-KB RAM
- ZigBee Systems(512-KB Flash)
- Home/Building Automation
- Industrial Control and Monitoring
- Low-Power Wireless Sensor Networks
- Consumer Electronics
- Supply Voltage 2.0V-3.6V
- Operation frequency: 2405-2480MHz
- Conform to ZigBee Standard,support ZLL and ZHA.
- Support ceramic Antenna
- Use UART communication,and support to upgrade software by UART
- Integrate with 2.4G low power consumption of transceiver
- Temperature range:-40℃ ~ + 125℃
- 2-wire I2C-bus compatible serial interface; can operate as either master or slave
- 128-bit AES security processor
- RX current 14.7 mA, in low power receive mode 13 mA
- Very thin quad flat 6 x6 mm, 40 terminal package; lead-free and RoHS compliant

FCC compliance

This device complies with Part 15 of the FCC Rules.

Part Number	FCC ID
FNB56A6	2AE8BFNB56A6F

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

Warning for FNB56A6: This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

The final end product must be labeled in a visible area with the following: Contains FCC ID: 2AE8BFNB56A6F.

The OEM integrator is responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emission, PC peripheral requirements, etc.).

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- - Reorient or relocate the receiving antenna.
- - Increase the separation between the equipment and receiver.
- - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- - Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

This 2.4G Module complies with FCC radio-frequency exposure guidelines set forth for an uncontrolled environment.

This device is intended only for OEM integrators under the following conditions:

- (1) According to FCC Part 15 Subpart C Section 15.212, the radio elements of the modular transmitter must have their own shielding. This module is granted as a Single Modular Approval.
- (2) This device has been designed to operate with a External antenna having a maximum gain of 2dBi(max.). Only this type of antenna may be used.
- (3) Integration is typically strictly restricted to Grantee himself or dedicated OEM integrators under control of the Grantee.

As long as 3 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

USER MANUAL OF THE END PRODUCT:

In the user manual of the end product, the end user has to be informed that the equipment complies with FCC radio-frequency exposure guidelines set forth for an uncontrolled environment.

The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the user manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following" Contains TX FCC ID: 2AE8BFNB56A6F ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1)this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.